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PATENT & TRADEMARK OFFICE

## Contact-less communication system

### ABSTRACT

- 5 Apparatus for providing a contact-less, bi-directional communication link between a power supplying module (PS) and a power consuming module (PC) having two links, one (L1) used for power, clock, and upstream data transfer, the other (L2) used as downstream data link. PS contains a power supply circuit and PC contains a simple rectifier. The non-rectified output of L1 is used to provide the clock to PC. Amplitude variations of the signal driving L1 are
- 10 detected and used in PC (upstream data link). Data is transmitted from PC to PS by tapping the non-rectified signal from the output of L1, passing it through a switch, which alternates its polarity before being fed into L2. The phase relationship between signals at the input of L1 and the output of L2 provides the means for the downstream data transfer.